- 17. Where saddles or crickets are formed in back of chimneys, curves or similar vertical surfaces, they shall be carried not less than 10" under the Certi-label shakes/shingles.
- 18. Step flashing shall be used where vertical surfaces occur in connection with slopes. They shall be formed of separate pieces. Flashing shall extend horizontally not less than 3" and up the vertical wall so that they shall be lapped by the counter flashing not less than 4". It shall be installed in step fashion and each piece shall lap not less than 3" (one flashing installed on each course concealed under the covering course). If other than masonry is used the flashing shall extend up the wall not less than 3" behind the sheathing paper.
- Dormer flashings shall run 3" up under the sheathing paper and not less than 3" horizontally.
- 20. Window caps and all other projections at points where rain water accumulates must be provided with flashings, such flashings must extend a distance of at least 3" up the wall behind the sheathing paper.
- 21. Soil pipes: Metal shall extend no less than 6" in all directions and shall be installed to lap and shed water to the Certi-label shakes or shingles below.

# **Hips and Ridges**

22. All Certi-label shake/shingle hips and ridges shall be of alternate overlap type applied at the same exposure as field of roof and with nails long enough to penetrate into sheathing at least 3/4". Install a strip of felt, eave protection material or metal over hip or ridge under the ridge or hip cap. If longer or shorter ridge cap is used, adjust exposure accordingly.

## **Valleys**

- 23. Certi-label shakes/shingles extending into the valley shall be sawed to the proper miter.
- 24. Do not lay shakes or shingles with grain parallel with the centerline of valleys.
- 25. All valleys shall be installed with Certi-label shakes/shingles lapping the valley flashing not less than 7" on each side.
- 26. On Certi-label shingle roofs of less than6:12 slope, flashing should extend at least11" on each side.
- 27. For Certi-label shakes, metal valley sheets shall be center-crimped; of 20" minimum width; underlayed with a strip of No. 30 ASTM D226 Type II or No. 30 ASTM D4869 Type IV roofing felt over the sheathing, and coated with a metal paint.
- 28. Valley metals that have proved reliable in a particular geographic region should be selected. Copper flashing: check with local authorities on the durabilities of copper valleys in your area.

#### **Fasteners**

29. **For projects within 15 miles of salt water** – Certi-label roof shakes and shingles shall be secured with two (2) stainless steel Type 316 nails.

For locations outside the 15 mile range of salt water – Certi-label roof shakes and shingles shall be secured with two (2) fasteners: stainless steel Type 304, Type 316, or hot-dipped galvanized with a coating weight of ASTM A153 Class D (1.00z/ft2).

For Pressure Impregnated Products – Fasteners used with fire-retardant-treated (Certi-Guard®) or preservative-treated (Certi-Last®) shakes or shingles *must be* stainless steel Type 316. For specifics on installation, accessory building materials (flashing, etc.), finishes and maintenance please contact the treatment company directly.

Fasteners shall be long enough to penetrate into the solid wood sheathing at least 3/4" or all the way through.

30. Nails shall be driven flush but not so that the nail head crushes the wood. They shall be placed approximately 3/4" to 1" from the side edges of the shakes/shingles and approximately 1 1/2" above the butt line of the following course.

- Each Certi-label roof shake/shingle shall be secured with two full-driven, corrosion-resistant fasteners. (Specify size and type.)
- 32. Ensure that fasteners used are accepted by your local Building Official.

## **Shingles:**

- 33. Use 3d "box" nails for new roofs with 16" and 18" shingles.
- 34. Use 4d "box" nails for new roofs with 24" shingles.
- 35. Use 5d "box" nails for over-roofing with 16" and 18" shingles, and for hips and ridges.

### **Shakes:**

- 36. Use 5d "box" nails for new roofs with 18" straight-split shakes.
- 37. Use 6d "box 2" nails for new roofs with 18" and 24" handsplit-and-resawn shakes.
- 38. Use 5d "box" nails for new roofs with 24" tapersplit.
- 39. Use 6d "box 2" nails for new roofs with 18" and 24" tapersawn.
- 40. 6d nails are usually adequate for Certi-label shakes, but longer nails shall be used as Certi-label shake or shingle thickness or weather exposure dictates.